

Lake Piney Z Lake Vegetation Index Results (9-20-2014)

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake's plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduction of exotic species or lakeshore alterations,

and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units. Plants are identified in the selected unit by a visual boat "drive by" and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1.

TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.

Aquatic life use category	LVI Range	Description
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive.

The Lake Vegetation Index score for Piney Z was 52, placing the lake's vegetative community in the healthy category.

Sixty four species were found during the survey. Buttonbush (*Cephalanthus occidentalis*), pond cypress (*Taxodium ascendens*), American sweetgum (*Liquidambar styraciflua*), American cupscale-grass (*Sacciolepis striata*) and Chinese tallow tree (*Sapium sebiferum*) were the most dominant species in the lake. Other native shoreline vegetation included; red maple (*Acer rubrum*), coastal plain willow (*Salix carolina*) and pond cypress (*Taxodium ascendens*). Unfortunately, water hyacinth

(*Eichhornia crassipes*), wild taro (*Colocasia esculenta*), torpedo grass (*Panicum repens*), kudzu (*Pueraria montana*) Chinese tallow (*Sapium sebiferum*), and water spangles (*Salvinia minima*) all listed as Category I Invasive Exotics by the Florida Exotic Pest Plant Council were found in the littoral zone of Piney Z. Alligator weed (*Alternanthera philoxeroides*) is a Category II Invasive Exotic found in the lake. Additionally, the exotic vaseygrass (*Paspalum urvillei*), and Japanese climbing fern (*Lygodium japonicum*) were also found in and near the lake.

For a complete list of plants found during the LVI survey, please see Table 2.

TABLE 2. Scientific and common names of the plants identified during the Lake Piney Z LVI survey (9-20-14).

Scientific Name	Common Name
<i>Acer rubrum</i>	red maple
<i>Alternanthera philoxeroides(II)</i>	alligator weed
<i>Ambrosia trifida</i>	great ragweed
<i>Ampelopsis arborea</i>	peppervine
<i>Andropogon virginicus</i>	broomsedge bluestem
<i>Baccharis glomeruliflora</i>	silverling
<i>Bacopa caroliniana</i>	lemon Bacopa
<i>Bidens laevis</i>	smooth beggartick
<i>Bignonia capreolata</i>	crossvine
<i>Boehmeria cylindrica</i>	false nettle
<i>Carex lupuliformis</i>	false hop sedge
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Colocasia esculenta (I)</i>	wild taro
<i>Cyperus odoratus</i>	fragrant flatsedge
<i>Decodon verticillatus</i>	swamp loosestrife
<i>Diodia virginiana</i>	Virginia buttonweed
<i>Diospyros virginiana</i>	common persimmon
<i>Eichhornia crassipes (I)</i>	water hyacinth
<i>Eupatorium capillifolium</i>	dogfennel
<i>Hydrocotyle</i> sp.	water pennywort
<i>Hydrolea quadrivalvis</i>	waterpod
<i>Hypericum</i> sp.	St. John's wort
<i>Juncus effusus</i>	common rush
<i>Liquidambar styraciflua</i>	American sweetgum
<i>Ludwigia arcuata</i>	needleleaf Ludwigia
<i>Ludwigia leptocarpa</i>	anglestem primrose willow
<i>Ludwigia sphaerocarpa</i>	globe-fruited primrose willow
<i>Luziola fluitans</i>	southern watergrass
<i>Lygodium japonicum</i>	Japanese climbing fern
<i>Mikania scandens</i>	climbing hempvine
<i>Myrica cerifera</i>	wax myrtle
<i>Nelumbo lutea</i>	American lotus
<i>Nuphar</i> sp.	spatterdock
<i>Nymphaea odorata</i>	fragrant waterlily
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo
<i>Panicum repens(I)</i>	torpedo grass
<i>Paspalum urvillei</i>	vaseygrass
<i>Pinus taeda</i>	loblolly pine

<i>Polygonum densiflorum (glabrum)</i>	denseflower knotweed
<i>Polygonum hirsutum</i>	hairy smartweed
<i>Polygonum punctatum</i>	dotted smartweed
<i>Pontederia cordata</i>	pickerelweed
<i>Pueraria montana (I)</i>	kudzu
<i>Quercus nigra</i>	water oak
<i>Rhexia mariana</i>	Maryland meadowbeauty
<i>Rubus</i> sp.	blackberry
<i>Sacciolepis striata</i>	American cupscale-grass
<i>Sagittaria filiformis</i>	threadleaf arrowhead
<i>Sagittaria lancifolia</i>	duck potato
<i>Sagittaria latifolia</i>	broadleaf arrowhead
<i>Salix carolina</i>	coastal plain willow
<i>Salix carolina</i>	coastal plain willow
<i>Salvinia minima(I)</i>	water spangles
<i>Sambucus canadensis</i> subsp. <i>nigra</i>	American elderberry
<i>Sapium sebiferum(I)</i>	Chinese tallow tree
<i>Scirpus cyperinus</i>	woolgrass
<i>Sesbania herbacea</i>	bigpod Sesbania
<i>Sida rhombifolia</i>	arrowleaf Sida
<i>Solidago fistulosa</i>	pine barren goldenrod
<i>Taxodium ascendens</i>	pond cypress
<i>Triadenum virginicum</i>	marsh St. John's wort
<i>Vitis rotundifolia</i>	muscadine
<i>Woodwardia areolata</i>	netted chain fern
<i>Woodwardia virginica</i>	Virginia chain fern

I - Category I Invasive Exotics

II - Category II Invasive Exotics

For additional information about the LVI please review the Florida Department of Environmental Protection's [LVI Primer document](#).

For additional information about Category I and II invasive exotic plants, please visit the [Florida Exotic Pest Plant Council](#) webpage.

For more detailed information about the above species, please visit the [Atlas of Florida Vascular Plants](#) website.